

## SAFETY TEST REPORT

On Model Name: LCD TV

Model Number: 19L\*\*\*\*, 20L\*\*\*\*, 22L\*\*\*\*, 23L\*\*\*\*

Trademark: N/A

Prepared for Shenzhen KTC Technology Co., Ltd.

According to

EN 60065:2002+A1:2006+A11:2008

*Audio, Video and similar electronic apparatus – Safety requirements*

Test Report #: SHE-1007-10462-LVD

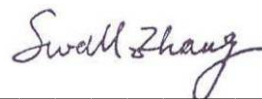
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Test Report Released By:



Swall Zhang

Nov 02, 2010

Date

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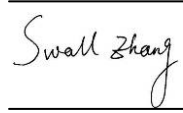
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<p align="center"><b>TEST REPORT</b></p> <p align="center"><b>EN 60065</b></p> <p align="center"><b>Audio, video and similar electronic apparatus</b></p> <p align="center"><b>Safety requirements</b></p>	
<b>Report</b> Reference No.....	SHE-1007-10462-LVD
Tested by (+ signature) .....	Shally Peng 
Approved by (+ signature).....	Swall Zhang 
Date of issue .....	2010-11-02
Contents.....	51 Pages Total including the front pages.
<b>Testing laboratory</b> Name .....	EMC Compliance Management Group.
Address.....	Room 707, West 7/F, Building 201 Tairan Road 4, Chegongmiao Industrial Estate, Futian District, Shenzhen, China
Testing location.....	Same as above
<b>Client</b> Name .....	Shenzhen KTC Technology Co., Ltd.
Address.....	Northern Wuhe Road, Gangtou, Buji, Longgang, Shenzhen, China
Standard .....	EN 60065:2002+A1:2006+A11:2008
Test procedure .....	LVD
Non-standard test method.....	N/A
<b>Test Report Form/blank test report</b>	
Test Report Form No.....	IECEN60065F
TRF originator.....	BEAB
Master TRF .....	Dated 2003-02
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Test item Description.....	LCD TV
Trademark.....	N/A
Model and/or type reference .....	19L****, 20L****, 22L****, 23L**** ("*" can be "0—9" or "A—Z" or "Blank" to indicate the different code of the client or the different sales territory)
Manufacturer.....	Shenzhen KTC Technology Co., Ltd.
Model tested .....	19L11A, 23L11
Rating(s) .....	19L****:100-240V~, 50/60Hz, Max 35W 20L****:100-240V~, 50/60Hz, Max 35W 22L****:100-240V~, 50/60Hz, Max 35W 23L****:100-240V~, 50/60Hz, Max 40W

<b>Test case verdicts</b> Test case does not apply to the test object .....: N(.A.) Test item does meet the requirement .....: P(ass) Test item does not meet the requirement .....: F(ail)
<b>Testing</b> Date of receipt of test item .....: 2010.10.24 Date(s) of performance of test.....: 2010.10.24 to 10.30
<b>General remarks</b>  This report shall not be reproduced except in full without the written approval of the testing laboratory. The test results presented in this report relate only to the item tested. "(see remark #)" refers to a remark appended to the report. "(see Annex #)" refers to an annex appended to the report. Throughout this report a comma is used as the decimal separator.
<b>Summary of Testing and Conclusions</b>  The sample(s) tested complies with the requirements of EN 60065:2002+A1:2006+A11:2008. Compliance with European Special National Conditions, Annex ZB, and A – Deviations, Annex ZC, is recorded at the end of this report. The equipment has been evaluated for maximum ambient temperature of +40°C according to user manual.
<b>Model Description:</b>  For Model series 19L ****, 20L ****, 22L **** and 23L ****, the means of "*" is as below : "*" can be "0—9" or "A—Z" or "Blank" to indicate the different code of the client or the different sales territory. Series models 19L ****, 20L ****, 22L **** and 23L **** are identical to each other except for LCD Panel with control board, enclosure size and model designation; All models in each series are identical to each other except for model designation. So we select the model number 19L11A and 23L11 to test.

**Copy of marking plate:**

Take model 19L11A, 20L11, 22L11A and 23L11 for example:



EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
3	<b>GENERAL REQUIREMENTS</b>		P
	Safety class of the apparatus .....: Class I		P
4	<b>GENERAL CONDITIONS OF TESTS</b>		P
4.1.4	Ventilation instructions require the use of the test box	Yes	P
5	<b>MARKING</b>		P
	Comprehensible and easily discernible		P
	Permanent durability against water and petroleum spirit		P
5.1	Identification, maker, model .....: Class II symbol if applicable	Refer to marking label	P
	Rated supply voltage and symbol .....: 100-240V~		P
	Frequency if safety dependant	50/60Hz	P
	Rated current or power consumption .....: Max 35W for model 19L ****, 20L **** and 22L ****, Max 40W for model 23L ****, See appended Table 5.1		P
5.2	Earth terminal	Class I equipment	P
	Hazardous live terminals	No such terminal	N
	Supply output terminals (other than mains)	No such terminal	N
5.3	Use of triangle with exclamation mark	Such symbol is indicated on circuit diagram for specific components.	P
5.4	Instructions for use	User's manual is provided in English	P
5.4.1	Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc.	Refer to user manual.	P
	Hazardous live terminals, instructions for wiring	Not applicable	N
	Instructions for replacing lithium battery	No lithium battery	N
	Instructions for modem if fitted	No any modem	N
	Class I earth connection warning		P
	Instructions for multimedia system connection		P
	Special stability warning for fixed installation		N
5.4.2	Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings	All pole switch used.	P
	Instructions for permanently connected equipment	Not a permanently connected equipment.	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
6	<b>HAZARDOUS RADIATION</b>		N
6.1	Ionizing radiation < 36 pA/kg (0,5 mR/h)	There is no CRT. No Ionizing Radiation generated.	N
6.1 EN 60065	European Council Directive 96/29/Euratom of 13 May 1996 10cm from outer surface of apparatus <1µSv/h (0,1mR/h)		N
6.2	Laser radiation, emission limits to IEC 60825-1 .....:	LEDs for indication considered inherently Class 1	P
	Emission limits under fault conditions .....:	Class 1	P

7	<b>HEATING UNDER NORMAL OPERATING CONDITIONS</b>		P
7.1	Temperature rises not exceeding specified values, no operation of fuse links	(see appended table 7.1)	P
7.1.1	Temperature rise of accessible parts	(see appended table 7.1)	P
7.1.2	Temperature rise of parts providing electrical insulation	(see appended table 7.1)	P
7.1.3	Temperature rise of parts acting as a support or as a mechanical barrier	(see appended table 7.1)	P
7.1.4	Temperature rise of windings	(see appended table 7.1)	P
7.1.5	Parts not subject to a limit under 7.1.1 to 7.1.4	(see appended table 7.1)	P
7.2	Softening temperature of insulating material supporting parts conductively connected to the mains carrying a current > 0,2 A at least 150 °C		P

8	<b>CONSTRUCTIONAL REQUIREMENTS WITH REGARD TO THE PROTECTION AGAINST ELECTRIC SHOCK</b>		P
8.1	Conductive parts covered by lacquer, paper, untreated textile oxide films and beads etc. considered to be bare	Considered	P
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	No changing voltage setting device etc.	N
8.3	Insulation of hazardous live parts not provided by hygroscopic material	No such hygroscopic material.	N
8.4	No risk of electric shock following the removal of a cover which can be removed by hand	No risk of electric shock	P
8.5	Class I equipment		P
	Basic insulation between hazardous live parts and earthed accessible parts	Basic insulation complies with requirements specified in clause 10 and 13.	P
	Resistors bridging basic insulation complying with 14.2.1 a)	No resistors bridging basic insulation.	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
8.6	Class II equipment and Class II constructions within Class I equipment	See below.	P
	Reinforced or double insulation between hazardous live parts and accessible parts	Double/Reinforced insulation complies with requirements specified in clause 10 and 13.	P
	Components bridging reinforced or double insulation complying with 14.1 a) or 14.3	1) The apparatus have isolating transformers (T01) complies with clause 14.3. 2) Optocoupler (IC2) complies with 14.11.	P
	Basic and supplementary insulation each being bridged by a capacitor complying with 14.2.1 a)	Certified capacitors CY1, CY2 are approved components, see appended table 14.	P
	Reinforced or double insulation being bridged with 2 capacitors in series complying with 14.2.1 a)		N
	Reinforced or double insulation being bridged with a single capacitor complying with 14.2.1 b)	Certified capacitors CY3 is approved components, see appended table 14.	P
	Basic insulation bridged by components complying with 14.3.4.3	None	N
8.7	This clause is voided.		N
8.8	Basic or supplementary insulation > 0,4 mm (mm) :	The thickness of supplementary insulation used in wire >0.4mm	P
	Reinforced insulation > 0,4 mm (mm) ..... :	a. Transformer bobbin: min. 0.4mm thickness. b. Optocouplers inner insulation, ref. 14.11.	P
	Thin sheet insulation		P
	Basic or supplementary insulation, at least two layers, each meeting 10.3		P
	Basic or supplementary insulation, three layers any two of which meet 10.3		N
	Reinforced insulation, two layers each of which meet 10.3		N
	Reinforced insulation, three layers any two which meet 10.3		P
8.9	Adequate insulation between internal hazardous live conductors and accessible parts	Double insulated.	P
	Adequate insulation between internal hazardous live parts and conductors connected to accessible parts	All internal live parts are separated by reinforced or double insulation between accessible parts.	P
8.10	Double insulation between conductors connected to the mains and accessible parts	Class I apparatus	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
8.11	Detaching of wires		P
	No undue reduction of creepages or clearance distances if wires become detached	Internal wires fixed by cable ties and connectors.	P
	Vibration test carried out .....	No wire detached after test.	P
8.12	Adequate cross-sectional area of internal wiring to mains socket-outlets		P
8.13	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)	No windows, lenses, etc	N
8.14	Adequate fastening of covers (pull test 50 N for 10 s)	See appended table 8.14.	P
8.15	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges	No hot parts and sharp edges can be touched.	P
8.16	Only special supply equipment can be used	Not such equipment.	N
8.17	Insulated winding wire without additional interleaved insulation	Not applicable.	N
8.18	Endurance test as required by 8.17	Not applicable.	N
8.19	Disconnection from the mains		P
8.19.1	Disconnect device	All-pole switch used.	P
	All-pole switch or circuit breaker with >3mm contact separation	VDE approved.	P
8.19.2	Mains switch ON indication	Symbol used complies with clause 5.	P
8.20	Switch not fitted in the mains cord		N
8.21	Bridging components comply with clause 14	No such components bridging switch	N
8.22	Test specifications of non-separable thin sheet material(+A1)	Not applicable.	N

9	<b>ELECTRIC SHOCK HAZARD UNDER NORMAL OPERATING CONDITIONS</b>		P
9.1	Testing on the outside		P
9.1.1	For voltages >1000 V ac or >1500 V dc complies with clause 13.3.1 for basic insulation	Not applicable	N
9.1.1.1	Touch current measured from terminal devices using the network in annex D .....	Refer to appended table 9.1.1	P
	Discharge not exceeding 45 µC		P
	Energy of discharge not exceeding 350 mJ		N
9.1.1.2	Test with test finger and test probe	No accesses of hazardous live with the test finger and test probe.	P
9.1.2	No hazardous live shafts of knobs, handles or levers	No such components	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
9.1.3	Ventilation holes tested by means of 4 mm x 100 mm test pin	No hazard.	P
9.1.4	Terminal devices tested with 1 mm x 20 mm test pin (10 N); test probe D of IEC 61032	No hazard.	P
	Terminal devices tested with 1 mm x 100 mm straight wire (1 N); test probe D of IEC 61032	No hazard.	P
9.1.5	Pre-set controls tested with 2 mm x 100 mm test pin (10 N); test probe C of IEC 61032	No such pre-set controls.	N
9.1.6	No shock hazard due to stored charge on withdrawal of the mains plug; voltage (V) after 2 s :	After conducted at least 10 times, the measured voltage after 2s is 0V.	P
	If C is not greater than 0,1 $\mu$ F no test needed		N
9.1.7	Enclosure sufficiently resistant to external force		P
	Test probe 11 of IEC 61032 for 10 s (50 N)	No damage.	P
	Test hook of fig. 4 for 10 s (20 N)	No damage.	P
	30 mm diameter test tool for 5 s (100 or 250 N) ..... :	100N applied, no damage.	P
9.2	No hazard after removing a cover by hand	Cover can't be removed by hand	N

10	<b>INSULATION REQUIREMENTS</b>		P
10.1	Insulation resistance (M $\Omega$ ) at least 2 M $\Omega$ min. after surge test for basic and 4 M $\Omega$ min. for reinforced insulation ..... :	Class I apparatus.	N
10.2	Humidity treatment 48 h or 120 h ..... :	30°C, 93% rh chamber for 48 hours	P
10.3	Insulation resistance and dielectric strength	See appended table 10.3	P

11	<b>FAULT CONDITIONS</b>		P
11.1	No shock hazard under fault condition	See appended table 11.1	P
11.2	Heating under fault condition	See appended table 11.2(con't)	P
	No hazard from softening solder	No such condition	P
11.2.1	Measurement of temperature rises	see appended table 11.2(con't)	P
11.2.2	Temperature rise of accessible parts	see appended table 11.2(con't)	P
11.2.3	Temperature rise of parts, other than windings, providing electrical insulation	see appended table 11.2(con't)	P
	Temperature rise of printed circuit boards (PCB) exceeding the limits of table 3 by max. 100 K for max. 5 min	The temperature rise of PCB board does not exceed the limit of table 3.	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	a) Temperature rise of printed circuit boards (PCB) to 20.1.3, exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm <sup>2</sup>		N
	b) Temperature rise of printed circuit boards (PCB) to 20.1.3 up to 300 K for an area not greater than 2 cm <sup>2</sup> for a maximum of 5 min		N
	Meets all the special conditions if conductors on printed circuit boards are interrupted	No conductors are interrupted / peeled / loosened during fault conditions.	P
	Class I protective earthing maintained		P
11.2.4	Temperature rise of parts acting as a support or mechanical barrier	Temperature rises are within the limits	P
11.2.5	Temperature rise of windings	See appended table 11.2(con't)	P
11.2.6	Temperature rise of parts not subject to the limits of 11.2.1 to 11.2.5	See appended table 11.2(con't)	P

12	<b>MECHANICAL STRENGTH</b>		P
12.1.1	Bump test where mass >7 kg	<7kg	N
12.1.2	Vibration test	Yes, no hazard.	P
12.1.3	Impact hammer test	After the test, the apparatus can withstand the dielectric strength test as specified in 10.3 and show no damage.	P
	Steel ball test	See appended table 12.1.3	P
12.1.4	Drop test for portable apparatus where mass < 7kg	No hazard.	P
12.1.5	Thermoplastic enclosures strain relief test	70°C, See appended table 12.1.5	P
12.2	Fixing of knobs, push buttons, keys and levers	Push buttons are fastened that their use did not impair the protection against electric shock.	P
12.3	Remote controls with hazardous live parts		N
12.4	Drawers (pull test 50 N, 10 s)	No drawers.	N
12.5	Antenna coaxial sockets providing isolation	No antenna coaxial sockets direct connect primary circuit.	N
12.6	Telescoping or rod antennas construction	No such construction	N
12.6.1	Telescoping or rod antennas securement	No such construction	N

13	<b>CLEARANCE AND CREEPAGE DISTANCES</b>		P
13.1	Clearances in accordance with 13.3	See clause 13.3	P
	Creepage distances in accordance with 13.4	See clause 13.4	P

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
13.2	Determination of operating voltage	See appended table 13.2	P
13.3	Clearances	See appended table 13.3	P
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9		P
13.3.3	Circuits not conductively connected to the mains comply with table 10	No such construction provided	N
13.3.4	Measurement of transient voltages		N
13.4	Creepage distances	See appended table 13.2	P
	Creepage distances greater than table 11 minima		P
13.5	Printed boards	No such PCB used	N
13.5.1	Clearances and creepage distances between conductors on printed circuit boards, one of which may be conductively connected to the mains, as in fig. 10		N
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)		N
13.6	Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4	No such construction	N
	Conductive parts along reliably cemented joints comply with 8.8	No such construction	N
13.7	Enclosed, enveloped or hermetically sealed parts: not conductively connected to the mains: clearances and creepage distances as in table 12	No such construction	N
13.8	Parts filled with insulating compound, meeting the requirements of 8.8	Opto-couplers meet the requirements	P

14	<b>COMPONENTS</b>		P
14.1	Resistors		P
	a) Resistors between hazardous live parts and accessible metal parts	No such resistors.	N
	b) Resistors, other than between hazardous live parts and accessible parts	Three bleeder resistors (RXA, RXB, RXC, RXD) connected between Live and Neutral in series, located after fuse. Shorting-circuit or disconnecting of resistor does not cause infringement of the requirement for operation under fault conditions.	N
	c) Resistors separately approved .....	No such component	N
14.2	Capacitors and RC units	See below	P
	Capacitors separately approved	See below	P

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.2.1	Y capacitors tested to IEC 60384-14, 2 <sup>nd</sup> edition ...:	Y1 or Y2 capacitors(CY1,CY2, CY3) certified according to IEC 60384-14: 2nd edition.	P
14.2.2	X capacitors tested to IEC 60384-14, 2 <sup>nd</sup> edition ...:	X2 capacitors (CX2) certified according to IEC 60384-14: 2nd edition.	P
14.2.3	Capacitors operating at mains frequency but not connected to the mains: tests for X2 .....	No such capacitor used.	N
14.2.5	Capacitors with volume exceeding 1750 mm <sup>3</sup> , where short-circuit current exceeds 0,2 A: compliance with IEC60384-1, 4.38 category B or better .....		N
	Capacitors with volume exceeding 1750 mm <sup>3</sup> , mounted closer to a potential ignition source than table 5 permits: compliance with IEC 60 384-1, 4.38 category B or better .....		N
	Shielded by a barrier to V-0 or metal .....		N
14.3	Inductors and windings		P
	Comply with IEC 61558-1, IEC 61558-2 (as relevant) and clause 20.1.4		N
14.3.1	Transformers and inductors marked with manufacturer's name and type .....		P
	Transformers and inductors separately approved .:		N
14.3.2	General		P
14.3.3	Constructional requirements		P
14.3.3.1	Clearances and creepage distances comply with clause 13	Transformers complied with clause 13.	P
14.3.3.2	Transformers meet the constructional requirements	Checked by inspection.	P
14.3.4.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation)	Double or reinforced insulation between hazardous live windings and accessible conductive parts.	P
	Coil formers and partition walls > 0,4 mm	The bobbin: > 0.4mm thickness.	N
14.3.4.2	Class I transformers, with basic insulation and protective screening only if all 7 conditions of 14.3.4.2 are met	Transformer is evaluated with Class II construction.	N
14.3.4.3	Separating transformers with at least basic insulation		N
14.3.5.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)	Double or reinforced insulation between hazardous live windings and accessible conductive parts.	P

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Coil formers and partition walls > 0,4 mm	The bobbin: > 0.4mm thickness.	P
14.3.5.2	Class I transformers have adequate insulation between hazardous live parts and accessible conductive parts or those conductive parts or protective screens connected to a protective earth terminal	Windings of Class II construction used.	N
	Winding wires connected to protective earth have adequate current-carrying capacity		N
14.4	High voltage components		N
	High-voltage components and assemblies: U > 4 kV (peak) separately approved		N
	Component meets category V-1 of IEC 60707		N
14.4.1	High voltage transformers and multipliers tested as part of the submission	Not applicable	N
14.4.2	High voltage assemblies and other parts tested as part of the submission		N
14.5	Protective devices		P
	Protective devices used within their ratings	Mains fuse, F01	P
	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened	Certified protective devices applied. See List of Critical components.	P
14.5.1.1	a) Thermal cut-outs separately approved		N
	b) Thermal cut-outs tested as part of the submission		N
14.5.1.2	a) Thermal links separately approved		N
	b) Thermal links tested as part of the submission		N
14.5.1.3	Thermal devices re-settable by soldering	No thermal devices	N
14.5.2.1	Fuse-links in the mains circuit according to IEC 60127	Fuse is approved according to IEC 60127. See List of critical components.	P
14.5.2.2	Correct marking of fuse-links adjacent to holder ...:	Correct marking applied close to the fuse: F01 T2AL, 250Vac	P
14.5.2.3	Not possible to connect fuses in parallel .....	No possible to connect fuses in parallel.	P
14.5.2.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool .....		P
14.5.3	PTC-S thermistors comply with IEC 60730-1	No such component	N
	PTC-S devices (15 W) category V-1 or better		N
14.5.4	Circuit protectors have adequate breaking capacity and their position is correctly marked		N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.6	Switches	VDE approved.	P
14.6.1 a)	Separate testing to IEC 61058 including: 10 000 operations normal pollution suitability resistance to heat and fire level 3 and V-0 compliance with annex G, G.1.1		N
14.6.1 b)	Tested in the apparatus:		N
	Switch controlling > 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.3, 14.6.4 and V-0 in annex G, G.1.1		N
	Switch controlling > 0.2A with open contact voltage < 35 V (peak)/24 V dc complying with 14.6.3 and V-0 in annex G, G.1.1		N
	Switch controlling < 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.4 and V-0 in annex G, G.1.1		N
14.6.2	Switch tested to 14.6.1 b) constructed to IEC 61058-1 subclause 13.1 and has making/breaking action independent of speed of actuation		N
14.6.3	Switch tested to 14.6.1 b) compliant with IEC 61058-1 subclause 16.2.2 d) and m) not attaining excessive temperatures in use		N
14.6.4	Switch tested to 14.6.1 b) has adequate dielectric strength		N
14.6.5	Mains switch controlling mains socket outlets additional tests to IEC 60058-1	No such components	N
	Socket outlet current marking correct		N
14.7	Safety interlocks	No safety interlock	N
	Safety interlocks to 2.8 of IEC 60950		N
14.8	Voltage setting devices	No voltage setting devices	N
	Voltage setting device not likely to be changed accidentally		N
14.9	Motors	No such components	N
14.9.1	Endurance test on motors		N
	Motor start test		N
	Dielectric strength test		N
14.9.2	Not adversely affected by oil or grease etc.		N
14.9.3	Protection against moving parts		N
14.9.4	Motors with phase-shifting capacitors, three-phase motors and series motors meet clause. B.8, B.9 and B.10 of IEC 60950, Annex B		N
14.10	Batteries	No battery used	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.10.1	Batteries mounted with no risk of accumulation of flammable gases		N
14.10.2	No possibility of recharging non-rechargeable batteries		N
14.10.3	Recharging currents and times within manufacturers limits		N
	Lithium batteries discharge and reverse currents within the manufacturers limits		N
14.10.4	Battery mould stress relief		N
14.10.5	Battery drop test		N
14.11	Optocouplers	Opto-coupler (IC2) is approval component, see list of critical components.	P
	Optocouplers comply with Cl. 8		P
	Internal and external dimensions to 13.1. or alternatively 13.6 (jointed insulation)		P
14.12	Surge suppression varistors	No such component used.	N
	Comply with IEC 61051-2		N
	Not connected between mains and accessible parts except for earthed parts of permanently connected apparatus		N
	Complies with the current pulse, fire hazard and thermal stress requirements of 14.12		N

15	<b>TERMINALS</b>		P
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard	See appended table 14.2	P
15.1.2	Connectors for antenna, earth, audio, video or data:		P
	No risk of insertion in mains socket-outlets	Signal input and output connectors are so designed that plug inserting into mains socket-outlets is unlikely occur.	P
	No risk of insertion into audio or video: outlets marked with the symbol of 5.2	No risk.	P
15.1.3	Output terminals of a.c. adaptors or similar devices not compatible with household mains socket-outlets		N
15.2	Provision for protective earthing		P
	Accessible conductive parts of Class I equipment reliably connected to earth terminal, within equipment		P

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Class I supply equipment with non-hazardous live output voltage: output circuit not connected to earth		P
	Protective earth conductors correctly coloured		P
	Equipment with non-detachable mains cord provided with separate protective earth terminal near mains input		P
	Protective earth terminal resistant to corrosion		P
	Earth resistance test: $< 0,1 \Omega$ at 25 A .....:	0.045 $\Omega$	P
15.3	Terminals for external flexible cords and for permanent connection to the mains supply		P
15.3.1	Adequate terminals for connection of permanent wiring		P
15.3.2	Reliable connection of non-detachable cords:		P
	Not soldered to conductors of a printed circuit board		P
	Adequate clearances and creepage distances between connections should a wire break away		P
	Wire secured by additional means to the conductor		P
15.3.3	Screws and nuts clamping conductors have adequate threads: ISO 261, ISO 262 or similar		P
15.3.4	Soldered conductors wrapped around terminal prior to soldering or held in place by additional means		P
	Clamping of conductor and insulation if not soldered or held by screws		P
15.3.5	Terminals allow connection of appropriate cross-sectional area of conductors, for the rated current of the equipment		P
15.3.6	Terminals to 15.3.3 have sizes required by table 16		P
15.3.7	Terminals clamp conductors between metal and have adequate pressure		P
	Terminals designed to avoid conductor slipping out when tightened or loosened		P
	Terminals adequately fixed to avoid loosening when the clamping is tightened or loosened and stress on internal wiring is avoided		P
15.3.8	Terminals carrying a current more than 0,2 A: contact pressure not transmitted by insulating material except ceramic		N
15.3.9	Termination of non-detachable cords: wires terminated near to each other		P

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Terminals located and shielded: test with 8 mm strand		P
15.4	Devices forming a part of the mains plug	No plug-in equipment	N
15.4.1	No undue strain on mains socket-outlets		N
15.4.2	Device complies with standard for dimensions of mains plugs		N
15.4.3	Device has adequate mechanical strength (tests a,b,c)		N

16	<b>EXTERNAL FLEXIBLE CORDS</b> <i>External flexible cord is tested with end products.</i>		N
16.1	Mains cords sheathed type, complying with IEC 60227 for PVC or IEC 60245 for synthetic rubber cords .....		N
	Non-detachable cords for Class I have green/yellow core for protective earth		N
16.2	Mains cords conductors have adequate cross-sectional area for rated current consumption of the equipment		N
16.3	a) Flexible cords not complying with 16.1, used for interconnections between separate units of equipment used in combination and carrying hazardous live voltages, have adequate dielectric strength	Not applicable	N
	b) Flexible cords not complying with 16.1, withstand bending and mechanical stress (3.2 of IEC 60227-2)		N
16.4	Flexible cords used for connection between equipment have adequate cross-sectional areas to avoid temperature rise under normal and fault conditions		N
16.5	Adequate strain relief on external flexible cords		N
	Not possible to push cord back into equipment		N
	Strain relief device unlikely to damage flexible cord		N
	For mains cords of Class I equipment, hazardous live conductors become taut before earth conductor		N
16.6	Apertures for external flexible cord: no risk of damage to the cord during assembly or movement in use	Detachable cord used	N
16.7	Transportable musical instruments and amplifiers fitted with detachable cord set with appliance inlet to IEC 60320-1	Not transportable musical instrument	N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Transportable musical instruments and amplifiers fitted with detachable cord sets or with means of stowage to protect the cord	Not transportable musical instrument	N

17	<b>ELECTRICAL CONNECTIONS AND MECHANICAL FIXINGS</b>		P
17.1	Torque test to table 20:		P
	- screws into metal: 5 times	See appended table 17.1.	P
	- screws into non-metallic material: 10 times	See appended table 17.1.	P
17.2	Correct introduction into female threads in non-metallic material		N
17.3	Cover fixing screws: captive		P
	Non-captive fixing screws: no hazard when replaced by a screw whose length is 10 times its diameter	No hazard.	P
17.4	No loosening of conductive parts carrying a current > 0,2 A		P
17.5	Contact pressure not transmitted through plastic other than ceramic for connections carrying a current > 0,2 A		P
17.6	Stranded conductors of flexible supply cords carrying a current > 0,2 A with screw terminals not consolidated by solder	No such construction	N
17.7	Cover fixing devices other than screws have adequate strength and their positioning is unambiguous	No such construction	N
17.8	Fixing devices for detachable legs or stands provided		P
17.9	Internal pluggable connections, affecting safety, unlikely to become disconnected	Checked and internal connectors are fixed well	P

18	<b>MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		N
	Picture tube separately approved to IEC 61965:	No picture tube	N
	Picture tube separately approved to 18.1 .....		N
18.1	Picture tubes > 16 cm intrinsically protected		N
	Non-intrinsically protected tubes > 16 cm used with protective screen		N
18.2	Intrinsically protected tubes: tests on 12 samples		N
18.2.1	Samples subject to ageing: 6		N
18.2.2	Samples subject to implosion test: 6		N
18.2.3	Samples subject to mechanical strength test (steel ball): 6		N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
18.3	Non-intrinsically protected tubes tested to 18.3		N

19	<b>STABILITY AND MECHANICAL HAZARDS</b>		P
	Mass of the equipment exceeding 7 kg .....	<7kg	N
	Apparatus intended to be fastened in place – suitable instructions		N
19.1	Test on a plane, inclined at 10° to the horizontal		N
19.2	100 N force applied vertically downwards		N
19.3	100N force, or 13% of weight, applied horizontally to point of least stability		N
19.4	Edges or corners not hazardous	Edges or corners are rounded.	P
19.5	Glass surfaces with an area exceeding 0,1 m² or maximum dimension > 450 mm, pass the test of 19.5.1		N
19.6	Wall or ceiling mountings adequate		N

20	<b>RESISTANCE TO FIRE</b>		P
20.1	Electrical components and mechanical parts		P
	a) Exemption for components contained in an enclosure of material V-0 to IEC 60707 with openings not exceeding 1 mm in width	Resistance to fire is achieved by a combination of engineering design, production methods and by using materials with low flammability for internal parts.	P
	b) Exemption for small components as defined in 20.1	Considered.	P
20.1.1	Electrical components meet the requirements of Clause 14 or 20.1.4		P
20.1.2	Insulation of internal wiring working at voltages > 4 Kv or leaving an internal fire enclosure, not contributing to the spread of fire	No internal wiring working at voltages > 4 KV.	N
20.1.3	Material of printed circuit boards on which the available power exceeds 15 W at a voltage between 50 V and 400 V (peak) a.c. or d.c. meets V-1 or better to IEC60707, unless used in a fire enclosure	PCB with flammability class V-0.	P
	Material of printed circuit boards on which the available power exceeds 15 W at a voltage >400 V (peak) a.c. or d.c. meets V-0 to IEC 60707		N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
20.1.4	Components and parts not covered by 20.1.1, 20.1.2 and 20.1.3 (other than fire enclosures) mounted nearer to a potential ignition source than the distances in Table 21 comply with the relevant flammability category in Table 21	The distance between potential ignition source and components, parts not covered by 20.1.1 and 20.1.2, 20.1.3 exceeded the value specified in table 13.	P
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13	No barrier	N
20.2	Fire enclosure		N
20.2.1	Potential ignition sources with open circuit voltage > 4 kV (peak) a.c. or d.c. contained in a fire enclosure to V-1	Open circuit voltage is far less than 4 kV	N
20.2.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled		N
20.2.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure		N

A	<b>APPENDIX A, ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER</b>		N
A.5.1	j) Marked with IPX4 (IEC 60529), 5.4.1 a) does not apply	Not provided with protection against splashing water	N
A.10.2.1	Enclosure provides protection against splashing water		N
A.10.2.2	Humidity treatment carried out for 7 days		N

B	<b>APPENDIX B, APPARATUS TO BE CONNECTED TO THE TELECOMMUNICATION NETWORKS</b>		N
	Complies with IEC 62151 clause 1	Not connected to telecommunication networks	N
	Complies with IEC 62151 clause 2		N
	Complies with IEC 62151 clause 3 but with 3.5.4 modified to 2.4.10 of this standard		N
	Complies with IEC 62151 clause 4 but with 4.1.2, 4.1.3 and 4.2.1.2 modified in accordance with annex B of this standard		N
	Complies with IEC 62151 clause 5 but with 5.3.1 modified in accordance with annex B of this standard		N
	Complies with IEC 62151 clause 6		N
	Complies with IEC 62151 clause 7		N
	Complies with IEC 62151 annex A, B and C		N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
ZB	<b>ANNEX ZB TO EN 60065, SPECIAL NATIONAL CONDITIONS</b>		N
2.6.1	DK: certain types of Class I apparatus, see 15.1.1, may be provided with a plug not establishing earthing continuity when inserted in Danish socket-outlets		N
13.3.1	NO: In Norway, due to IT power distribution system used, the a.c. MAINS supply voltage is considered to be equal to the line-to-line voltage, and will remain 230V in case of a single earth fault.		N
15.1.1	DK: mains cord for single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to Heavy Current Regulations Section 107-2-D1		N
	DK: Class I equipment with socket-outlets with earthing contact, or which are intended to be used in locations where protection against indirect contact is required shall be provided with a plug in compliance with Standard Sheet DK 2-1a		N
	DK: socket-outlets for providing power to Class II equipment with a rated current of 2,5 A shall have dimensions according to the drawing on page 131 of EN 60 065:98 other dimensions shall be to IEC 60 083 Standard Sheet C 1a for portable socket-outlets		N
	DK: mains socket-outlets with earthing contact shall comply with Heavy Current Regulations Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a		N
	GB: equipment fitted with a flexible cable or cord provided with a 13A BS 1363 plug as in Statutory Instrument 1768:94		N
	IE: equipment fitted with a flexible cable or cord provided with a 13 A plug in accordance with Statutory Instrument 525:97		N
	NO: mains socket-outlets on Class II equipment meet CEE Publication 7 with the following amendments:		---
	- dimensions 2,5 A, 250 V socket-outlets shall comply with Standard Sheet 1 page 132 of EN 60 065:98		N
	- mechanical strength 2,5 A, 250 V socket-outlets tested as specified in EN 60 065, 12.1.3		N
	- protecting rim also tested		N
	NO: method b) of 8.1 is not permitted. Double or reinforced insulation is required between parts connected to the mains and parts connected to the public telecommunications network		N

EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
J.2	NO: In Norway, due to IT power distribution system used, the a.c. MAINS supply voltage is considered to be equal to the line-to-line voltage, and will remain 230V in case of a single earth fault.		N

ZC	<b>ANNEX ZC TO EN 60 065, A-DEVIATIONS</b>		N
5	DE: additional markings required in German language:		N
	- cathode ray tubes with an accelerating voltage between 20 kV and 30 kV (marking on the tube)		N
	- TV receivers whose picture tube has an accelerating voltage between 20 kV and 30 kV		N
	- TV receivers whose picture tube has an accelerating voltage greater than 30 kV		N
	- TV receivers whose picture tube has an accelerating voltage less than 20 kV		N
5.1	IT: additional markings on the outside of the TV receiver in Italian language		N
	IT: user instructions in Italian language including a conformity declaration		N
	IT: certification number on the back cover		N
14	SE: Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N

5.1	TABLE: input test （model:19L11）			P
Un (V)	In (A)	Pn (W)	Verify	
1/8 Max. non-clipped power on speakers with VGA mode (from PC).				
90V/50Hz	0.377	20.2	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.379	20.2	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.350	20.1	The power did not exceed rated value 10%. Rated power 35W.	
100V/60Hz	0.352	20.1	The power did not exceed rated value 10%. Rated power 35W.	
240V/50Hz	0.195	20.2	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.195	20.2	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.182	20.3	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.184	20.3	The power did not exceed rated value 10%. Rated power 35W.	
1/8 Max. non-clipped power on speakers with HDMI mode (from DVD player)				
90V/50Hz	0.371	19.8	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.373	19.8	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.346	19.7	The power did not exceed rated value 10%. Rated power 35W.	
100V/60Hz	0.347	19.7	The power did not exceed rated value 10%. Rated power 35W.	
240V/50Hz	0.190	19.7	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.191	19.8	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.180	19.9	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.181	19.9	The power did not exceed rated value 10%. Rated power 35W.	
1/8 Max. non-clipped power on speakers with AV mode (from Signal Generator)				
90V/50Hz	0.372	19.9	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.374	19.9	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.374	19.8	The power did not exceed rated value 10%. Rated power 35W.	

5.1	TABLE: input test （model:19L11）			P
Un (V)	In (A)	Pn (W)	Verify	
100V/60Hz	0.374	19.8	The power did not exceed rated value 10%. Rated power 35W.	
240V/50Hz	0.191	19.8	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.193	19.9	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.181	20.0	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.182	20.0	The power did not exceed rated value 10%. Rated power 35W.	
supplementary information				
Speaker is 8ohm .				

5.1	TABLE: Input test（model:19L11）			P
Un (V)		In (A)	Pn (W)	Verify
Max. non-clipped power on speakers with VGA mode (from PC).				
90V/50Hz	0.437	24.0	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.439	24.0	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.402	23.9	The power did not exceed rated value 10%. Rated power 35W.	
100V/60Hz	0.406	23.9	The power did not exceed rated value 10%. Rated power 35W.	
240V/50Hz	0.220	23.8	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.221	23.9	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.207	23.9	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.208	24.0	The power did not exceed rated value 10%. Rated power 35W.	
Max. non-clipped power on speakers with HDMI mode (from DVD player)				
90V/50Hz	0.402	21.8	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.405	21.8	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.372	21.7	The power did not exceed rated value 10%. Rated power 35W.	
100V/60Hz	0.372	21.7	The power did not exceed rated value	

5.1	TABLE: Input test (model:19L11)			P
Un (V)		In (A)	Pn (W)	Verify
				10%. Rated power 35W.
240V/50Hz	0.205	21.7	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.204	21.7	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.193	21.8	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.194	21.8	The power did not exceed rated value 10%. Rated power 35W.	
Max. non-clipped power on speakers with AV mode (from Signal Generator)				
90V/50Hz	0.429	23.4	The power did not exceed rated value 10%. Rated power 35W.	
90V/60Hz	0.432	23.4	The power did not exceed rated value 10%. Rated power 35W.	
100V/50Hz	0.397	23.3	The power did not exceed rated value 10%. Rated power 35W.	
100V/60Hz	0.398	23.4	The power did not exceed rated value 10%. Rated power 35W.	
240V/50Hz	0.217	23.3	The power did not exceed rated value 10%. Rated power 35W.	
240V/60Hz	0.217	23.3	The power did not exceed rated value 10%. Rated power 35W.	
264V/50Hz	0.204	23.4	The power did not exceed rated value 10%. Rated power 35W.	
264V/60Hz	0.205	23.3	The power did not exceed rated value 10%. Rated power 35W.	
supplementary information				
Speaker is 8ohm .				

5.1	TABLE: input test （model:23L11）			P
Un (V)	In (A)	Pn (W)	Verify	
1/8 Max. non-clipped power on speakers with VGA mode (from PC).				
90V/50Hz	0.499	27.6	The power did not exceed rated value 10%. Rated power 40W.	
90V/60Hz	0.501	27.6	The power did not exceed rated value 10%. Rated power 40W.	
100V/50Hz	0.462	27.5	The power did not exceed rated value 10%. Rated power 40W.	
100V/60Hz	0.464	27.5	The power did not exceed rated value 10%. Rated power 40W.	

5.1	TABLE: input test (model:23L11)			P
Un (V)		In (A)	Pn (W)	Verify
240V/50Hz		0.251	27.4	The power did not exceed rated value 10%. Rated power 40W.
240V/60Hz		0.253	27.4	The power did not exceed rated value 10%. Rated power 40W.
264V/50Hz		0.235	27.5	The power did not exceed rated value 10%. Rated power 40W.
264V/60Hz		0.236	27.5	The power did not exceed rated value 10%. Rated power 40W.
1/8 Max. non-clipped power on speakers with HDMI mode (from DVD player)				
90V/50Hz		0.498	27.6	The power did not exceed rated value 10%. Rated power 40W.
90V/60Hz		0.501	27.6	The power did not exceed rated value 10%. Rated power 40W.
100V/50Hz		0.460	27.6	The power did not exceed rated value 10%. Rated power 40W.
100V/60Hz		0.460	27.7	The power did not exceed rated value 10%. Rated power 40W.
240V/50Hz		0.249	27.4	The power did not exceed rated value 10%. Rated power 40W.
240V/60Hz		0.250	27.4	The power did not exceed rated value 10%. Rated power 40W.
264V/50Hz		0.234	27.6	The power did not exceed rated value 10%. Rated power 40W.
264V/60Hz		0.235	27.6	The power did not exceed rated value 10%. Rated power 40W.
1/8 Max. non-clipped power on speakers with AV mode (from Signal Generator)				
90V/50Hz		0.499	27.6	The power did not exceed rated value 10%. Rated power 40W.
90V/60Hz		0.500	27.6	The power did not exceed rated value 10%. Rated power 40W.
100V/50Hz		0.460	27.4	The power did not exceed rated value 10%. Rated power 40W.
100V/60Hz		0.463	27.5	The power did not exceed rated value 10%. Rated power 40W.
240V/50Hz		0.252	27.3	The power did not exceed rated value 10%. Rated power 40W.
240V/60Hz		0.252	27.3	The power did not exceed rated value 10%. Rated power 40W.
264V/50Hz		0.235	27.5	The power did not exceed rated value 10%. Rated power 40W.
264V/60Hz		0.236	27.5	The power did not exceed rated value 10%. Rated power 40W.

5.1	TABLE: input test （model:23L11）			P
Un (V)	In (A)	Pn (W)	Verify	
supplementary information				
Speaker is 8ohm .				

5.1	TABLE: Input test (model:23L11)			P
Un (V)		In (A)	Pn (W)	Verify
Max. non-clipped power on speakers with VGA mode (from PC).				
90V/50Hz	0.558	31.4	The power did not exceed rated value 10%. Rated power 40W.	
90V/60Hz	0.560	31.4	The power did not exceed rated value 10%. Rated power 40W.	
100V/50Hz	0.514	31.2	The power did not exceed rated value 10%. Rated power 40W.	
100V/60Hz	0.515	31.3	The power did not exceed rated value 10%. Rated power 40W.	
240V/50Hz	0.277	30.9	The power did not exceed rated value 10%. Rated power 40W.	
240V/60Hz	0.277	30.9	The power did not exceed rated value 10%. Rated power 40W.	
264V/50Hz	0.259	31.0	The power did not exceed rated value 10%. Rated power 40W.	
264V/60Hz	0.260	31.0	The power did not exceed rated value 10%. Rated power 40W.	
Max. non-clipped power on speakers with HDMI mode (from DVD player)				
90V/50Hz	0.532	29.7	The power did not exceed rated value 10%. Rated power 40W.	
90V/60Hz	0.534	29.7	The power did not exceed rated value 10%. Rated power 40W.	
100V/50Hz	0.492	29.5	The power did not exceed rated value 10%. Rated power 40W.	
100V/60Hz	0.494	29.5	The power did not exceed rated value 10%. Rated power 40W.	
240V/50Hz	0.267	29.4	The power did not exceed rated value 10%. Rated power 40W.	
240V/60Hz	0.267	29.4	The power did not exceed rated value 10%. Rated power 40W.	
264V/50Hz	0.250	29.5	The power did not exceed rated value 10%. Rated power 40W.	
264V/60Hz	0.250	29.5	The power did not exceed rated value 10%. Rated power 40W.	
Max. non-clipped power on speakers with AV mode (from Signal Generator)				

5.1	TABLE: Input test (model:23L11)			P
Un (V)	In (A)	Pn (W)	Verify	
90V/50Hz	0.552	31.1	The power did not exceed rated value 10%. Rated power 40W.	
90V/60Hz	0.554	31.2	The power did not exceed rated value 10%. Rated power 40W.	
100V/50Hz	0.509	31.0	The power did not exceed rated value 10%. Rated power 40W.	
100V/60Hz	0.512	31.0	The power did not exceed rated value 10%. Rated power 40W.	
240V/50Hz	0.275	30.7	The power did not exceed rated value 10%. Rated power 40W.	
240V/60Hz	0.275	30.8	The power did not exceed rated value 10%. Rated power 40W.	
264V/50Hz	0.258	30.9	The power did not exceed rated value 10%. Rated power 40W.	
264V/60Hz	0.258	30.9	The power did not exceed rated value 10%. Rated power 40W.	
supplementary information				
Speaker is 8ohm .				

<b>7.1 Normal Heating (19L11)</b>	<b>Loudspeaker impedance (Ω) .....</b>	8 x 2		<b>P</b>
	<b>Several loudspeaker systems</b>	--		—
	<b>Marking of loudspeaker terminals</b>	On body of speaker		—
<b>Monitored point:</b>		<b>dT (K)</b>		<b>Limit dT (K)</b>
		Vin=90V/60Hz	Vin=264V/50Hz	
Power plug		0.6	0.5	40
Power supply cord		4.9	5.4	40
Switch		1.1	1.9	45
Internal power wire		5.5	5.7	40
Connector CON1		6.5	7.2	--
L01 winding		11.6	11.1	80(130-10-40)
CX2 body		8.4	9.9	60(100-40)
L02 winding		11.4	9.9	80(130-10-40)
PCB under DA04		17.3	8.8	90(130-40)
PCB under Q01		17.4	22.9	90(130-40)
E-cap. EC1 body		11.4	10.2	60(105-40)
CY3 body		12.3	13.1	85(125-40)
Transformer T01 coil		27.1	30.5	80(130-10-40)

Transformer T01 core	22.2	25.4	80(130-10-40)
PCB under T01	18.5	20.5	90(130-40)
IC2 body	15.3	17.2	60(100-40)
Inside Enclosure near transformer	7.8	8.9	--
Outer Enclosure near transformer	7.1	8.0	55
Panel	6.2	6.9	55
Key press	3.4	4.1	45
Ambient (°C)	23.5	24.1	--
<b>supplementary information:</b>			
<p>*) Temperature limits of winding include less 10°C for thermocouple measurement method.  The temperature rise limit is based on max. ambient operating temperature 40°C declared by the client.  Test with the worst case of normal mode.</p>			

7.1 Normal Heating (23L11)	Loudspeaker impedance (Ω) .....	8 x 2		P
	Several loudspeaker systems	--		—
	Marking of loudspeaker terminals	On body of speaker		—
Monitored point:		dT (K)		Limit dT (K)
		Vin=90V/60Hz	Vin=264V/50Hz	
Power plug		1.3	1.1	40
Power supply cord		7.0	6.8	40
Switch		0.9	0.9	45
Internal power wire		2.8	2.3	40
Connector CON1		4.0	3.3	--
L01 winding		11.5	7.1	80(130-10-40)
CX2 body		6.9	6.4	60(100-40)
L02 winding		13.5	7.8	80(130-10-40)
PCB under DA04		16.4	10.1	90(130-40)
PCB under Q01		24.5	26.1	90(130-40)
E-cap. EC1 body		14.6	10.8	60(105-40)
CY3 body		14.7	13.3	85(125-40)
Transformer T01 coil		27.6	29.6	80(130-10-40)
Transformer T01 core		28.3	30.2	80(130-10-40)
PCB under T01		18.3	17.7	90(130-40)
IC2 body		17.4	18.1	60(100-40)
Inside Enclosure near transformer		9.2	9.3	--
Outer Enclosure near transformer		8.1	9.5	55
Panel		6.8	6.6	55

Key press	2.8	2.6	45
Ambient (°C)	25.1	24.8	--
<b>supplementary information:</b>			
*) Temperature limits of winding include less 10°C for thermocouple measurement method. The temperature rise limit is based on max. ambient operating temperature 40°C declared by the client. Test with the worst case of normal mode			

<b>7.2</b>	<b>TABLE: softening temperature of thermoplastics</b>			<b>P</b>
<b>Temperature T of part</b>		<b>T – normal conditions (°C)</b>	<b>T – fault conditions (°C)</b>	<b>T softening (°C)</b>
<b>Primary AC connector CON1</b>		<b>31.3</b>	<b>33.6</b>	<b>&gt;150</b>
<b>Plastic enclosure</b>		<b>34.3</b>	<b>39.8</b>	<b>&gt;150</b>

<b>8.14</b>	<b>Adequate fastening of covers (pull test 50 N for 10 s)</b>	<b>No damage , no loosen</b>	<b>P</b>
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<b>9.1.1.1</b>	<b>Touch current expressed as voltages U1 and U2 in Annex D</b>				<b>P</b>
<b>Location</b>	<b>Measured U1 V (peak)</b>	<b>Measured U1 V (DC)</b>	<b>Measured U2 V (peak)</b>	<b>Limits :</b> U1 Max 35V (peak) U1 Max 1.0V (DC) U2 Max 0.35V (peak)	
Mains pole – Plastic enclosure (copper foil)	2.9	--	0.28		P
Mains pole – Output terminal (included Antenna terminal)	8.2	--	0.31		P
Supply Board :(speaker s-c, openings, blocked, max-non-clipped)					
Mains pole – Plastic enclosure (copper foil)	2.8	--	0.23		P
Mains pole – Output terminal (included Antenna terminal)	5.1	--	0.28		P
<b>supplementary information</b>					
Vin = 264Vac, 60Hz The L/N earth leakage current is max. 0.5mA No other part exceeds 35V peak or 60V dc.					

<b>10.2</b>	<b>TABLE: Humidity Test</b>		<b>P</b>
	Humidity treatment 48 h or 120 h :	The products show no damage after kept in 30°C, 93% rh chamber for 48 hours	No hazards.

10.3	TABLE: insulation resistance measurements		P
Insulation resistance R between:		R (MΩ)	Required R (MΩ)
Basic: Unit Mains poles (primary fuse disconnected)		>2	2
Reinforced: Input and Plastic enclosure		>4	4
Reinforced: Input and Output terminals include antenna		>4	4
Reinforced: Primary and secondary of transformer T01		>4	4
Basic: Primary and core of transformer T01		>2	2
Basic: Secondary and core of transformer T01		>2	2
Reinforced: Insulation sheet between primary and secondary coil of T01		>4	4

10.3	TABLE: electric strength measurements		P
Test voltage applied between:		Test voltage (V)	Breakdown
Basic: Unit Mains poles (primary fuse disconnected)		2120Vdc	No
Reinforced: Input and Plastic enclosure		4240Vdc	No
Reinforced: Input and Output terminals include antenna		4240Vdc	No
Reinforced: Primary and secondary of transformer T01		4240Vdc	No
Basic: Primary and core of transformer T01		2120Vdc	No
Basic: Secondary and core of transformer T01		2120Vdc	No
Reinforced: Insulation sheet between primary and secondary coil of T01		4240Vdc	No

11.2	TABLE: summary of fault condition tests					P
	Voltage (V) 0,9 or 1,1 times rated voltage .....					90V or 264V
	Ambient temperature (°C) .....					25°C
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result
Speaker	S-C	264	2.0H	F01	0.223	Image display is normal, no hazards. Recoverable.
Ventilation openings	block	264	2.0H	F01	0.236	The unit normal operation, no hazards
speaker output	max. non-clipped	264	2.0H	F01	0.260	The unit normal operation, no hazards
On Power Supply Board						

DA01	S-C	264	1S	F01	0	Fuse opened immediately, no hazards
DA02	S-C	264	1S	F01	0	Fuse opened immediately, no hazards
EC1	S-C	264	1S	F01	0	Fuse opened immediately, no hazards
Q01 Pin G to S	S-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards
Q01 pin G-D	S-C	264	1S	F01	0	Fuse opened immediately, R112, Q01 damaged, no hazards
Q01 pin D-S	S-C	264	1S	F01	0	Fuse opened immediately, R109, R112, R108, Q01 damaged, no hazards
R112	S-C	264	10min	F01	0.183	Unit normal operation, no hazards
IC1 pin2-5	S-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards
IC1 pin2-3	S-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards
IC1 pin4-6	S-C	264	10min	F01	0.045	Unit shut down immediately, recoverable, no hazards
T01 pin1-2	S-C	264	10min	F01	0.044↔ 0.094	Unit shut down immediately, recoverable, no hazards
T01 pin4-6	S-C	264	10min	F01	0.044↔ 0.156	Unit shut down immediately, recoverable, no hazards
T01 pin7-9	S-C	264	10min	F01	0.290	Unit normal operation, no hazards.
T01 pin9-11	S-C	264	10min	F01	0.045↔ 0.120	Unit shut down immediately, recoverable, no hazards
D106	S-C	264	10min	F01	0.154	Unit normal operation, no hazards.
D107	S-C	264	10min	F01	0.045↔ 0.120	Unit shut down immediately, recoverable, no hazards
IC2 pin1-2	S-C	264	10min	F01	0.043↔ 0.303	Circuit protected, recoverable, no hazards
IC2 pin1	O-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards
IC2 pin3-4	S-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards

IC2 pin3	O-C	264	10min	F01	0.046	Unit shut down immediately, recoverable, no hazards
+5Vdc to GND	S-C	264	10min	F01	0.043↔ 0.208	Unit shut down immediately, recoverable, no hazards
+12Vdc to GND	S-C	264	10min	F01	0.043↔ 0.186	Unit shut down immediately, recoverable, no hazards

11.2	TABLE: summary of fault condition tests (Model: 19L11)			P	
	Voltage (V) 0,9 or 1,1 times rated voltage .....	90V		—	
	Ambient temperature (°C) .....	See below		—	
Monitored point:		dT (K)			Limit dT (K)
		Speaker S-C	Openings Blocked	max. non- clipped	
Power plug		0.4	0.2	0.5	40
Power supply cord		5.7	7.7	5.8	40
Switch		1.6	2.8	1.8	45
Internal power wire		6.2	7.7	6.3	40
Connector CON1		8.1	9.7	8.2	--
L01 winding		14.6	13.8	14.4	145
CX2 body		10.0	12.8	10.3	60(100-40)
L02 winding		13.6	12.2	13.6	145
PCB under DA04		20.2	15.6	20.3	145
PCB under Q01		21.4	25.8	21.5	145
E-cap. EC1 body		13.5	13.6	13.4	60(105-40)
CY3 body		14.9	16.6	14.9	85(125-40)
Transformer T01 coil		31.6	33.6	31.7	145
Transformer T01 core		26.3	28.5	26.2	145
PCB under T01		21.4	23.6	21.3	145
IC2 body		17.4	20.5	17.7	60(100-40)
Inside Enclosure near transformer		9.2	12.8	9.5	--
Outer Enclosure near transformer		8.4	12.4	11.6	55
Panel		7.3	8.5	7.4	55
Key press		4.2	6.3	4.3	45
Ambient (°C)		23.5	23.9	23.9	--
supplementary information:					

<b>11.2</b>	<b>TABLE: summary of fault condition tests (Model: 19L11)</b>	<b>P</b>
*) Temperature limits of winding include less 10°C for thermocouple measurement method. The temperature rise limit is based on max. ambient operating temperature 40°C declared by the client.		

11.2	TABLE: summary of fault condition tests (Model: 23L11)			P	
	Voltage (V) 0,9 or 1,1 times rated voltage .....	90V		—	
	Ambient temperature (°C) .....	See below		—	
Monitored point:		dT (K)			Limit dT (K)
		Speaker S-C	Openings Blocked	max. non-clipped	
Power plug		1.2	1.1	1.2	40
Power supply cord		7.3	8.3	7.1	40
Switch		0.9	1.2	1.0	45
Internal power wire		2.5	3.0	2.3	40
Connector CON1		4.1	5.5	3.7	--
L01 winding		13.9	14.6	13.4	145
CX2 body		7.7	9.4	7.3	60(100-40)
L02 winding		16.6	16.5	16.1	145
PCB under DA04		18.5	19.0	18.2	145
PCB under Q01		27.7	27.7	27.2	145
E-cap. EC1 body		16.7	17.4	16.2	60(105-40)
CY3 body		16.5	17.9	16.2	85(125-40)
Transformer T01 coil		31.3	32.8	31.7	145
Transformer T01 core		31.8	31.7	31.3	145
PCB under T01		20.5	21.1	20.1	145
IC2 body		19.5	21.3	19.0	60(100-40)
Inside Enclosure near transformer		10.3	14.0	10.1	--
Outer Enclosure near transformer		10.5	15.5	10.2	55
Panel		8.6	9.7	8.6	55
Key press		2.5	6.4	2.6	45
Ambient (°C)		25.6	25.8	25.8	--
supplementary information:					
*) Temperature limits of winding include less 10°C for thermocouple measurement method. The temperature rise limit is based on max. ambient operating temperature 40°C declared by the client.					

<b>12.1.3</b>	<b>TABLE: Mechanical strength-impact test</b>			<b>P</b>
<b>Applied part</b>		<b>Forces</b>	<b>Time</b>	<b>Result</b>
Top Plastic Enclosure		2J	3	No damage
Back Plastic Enclosure		2J	3	No damage
Side Plastic Enclosure		2J	3	No damage
Lift , right port		0.5J	3	No damage

<b>12.1.5</b>	<b>STRESS RELIEF TEST</b>		
Part	Test Temperature (°C)	Test Duration	Observation
Whole unit	70	7h	No visible defect
Notes: Test T=(dT+10+Tmax)°C, dT denote temperature rise of plastic enclosure, Tmax denote maximum ambient temperature 40°C			

13.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
T01 Pin1-7		218	368	
T01 Pin2-7		218	352	
T01 Pin4-7		230	472	
T01 Pin6-7		222	384	
T01 Pin1-8,9		296	384	
T01 Pin2-8,9		218	352	
T01 Pin4-8,9		273	480	
T01 Pin6-8,9		221	360	
T01 Pin1-11,12		218	360	
T01 Pin2-11,12		308	360	
T01 Pin4-11,12		324	480	Cl.=4.2mm, Cr.=6.8mm
T01 Pin6-11,12		296	408	
IC2 Pin1-3		228	356	
IC2 Pin1-4		227	352	
IC2 Pin2-3		226	356	
IC2 Pin2-4		225	352	
Pri. to sec. of CY3		219	348	
EC1 pin2 to CY3 sec.		221	348	
supplementary information:				
Remark: Vin=240V 60Hz				

13.3 - 13.4	TABLE: clearance and creepage distance measurements					P
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
Functional: Live – Neutral (before fuse)	<420	<250	2.0	4.1	2.5	4.1
Basic: Live – Grounding	<420	<250	2.0	9.0	2.5	9.0
Basic: Neutral to Grounding	<420	<250	2.0	6.5	2.5	6.5
Functional: Fuse	<420	<250	2.0	3.3	2.5	3.3
Basic: Primary components under PCB to metal chassis	<420	<250	2.0	3.5	2.5	3.5
Basic: PCB under CY1 and CY2	<420	<250	2.0	6.5	2.5	6.5
Reinforced: EC1 pin 2 to IC2 pin1	<420	<250	4.0	6.2	5.0	6.2
Reinforced: Pri. To sec. of IC2	356	228	4.0	7.7	5.0	7.7
Reinforced: Pri. To sec. of CY3	348	219	4.0	7.5	5.0	7.5
Reinforced: EC1 body To sec. of CY3	348	221	4.0	7.0	5.0	7.0
Transformer T01						
Reinforced: T01 Pri. To Sec.	324	480	4.2	7.0	6.8	7.0
Basic: T01 Pri. To core	324	480	2.1	2.8	3.4	4.2
Basic: T01 Sec. To core	324	480	2.1	2.8	3.4	4.2
supplementary information:						
T01 core considered as freebody.						

14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
1.Power Switch	Yueqing Leci Electronics Co.,Ltd.	RS601D	6 ( 4 ) A AC 250V	EN 61058-1:2002	VDE (40017430) UL (E258800)
	Zhangjiagang Huafeng Electronic Connector&Component Co.,Ltd.	HF-606(TV)-P	AC 250V 50HZ 8/128A	EN 61058-1:2002	TUV (150255590 01) UL (E128307)
	Zhe Jiang Bei Er Jia Electronic	PS8A	6 ( 4 ) A AC 250V	EN 61058-1:2002	VDE (40027141) UL (E236875)
2. Enclosure	Zibo Tungkou Chemical Co., Ltd.	VH-0816T	ABS, 94V-0	UL 94	UL (E239474)
	Cheil Industries Inc. Chemicals Div.	VH-0810(+)	ABS, 94V-0	UL 94	UL (E115797)

14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
3. LCD Panel	Chi Mei Corporation	PA-765(+)	ABS, 94V-0	UL 94	UL (E56070)
	Chi Mei Corporation	PA-766	ABS, 94V-0	UL 94	UL (E56070)
	LG Display Co., Ltd.	L*185***, L*200***, L*215***, L*230*** (“*” can be “0-9” or “A-Z” or “Blank” to indicate the differnt code of the client or the different sales territory)	18.5 inch 20 inch 21.5 inch 23 inch	UL 60950	UL (E200909)
	SAMSUNG ELECTRONICS CO LTD	LT*200****, LT*230**** (“*” can be “0-9” or “A-Z” or “Blank” to indicate the differnt code of the client or the different sales territory)	20inch, 23 inch	UL 60950	UL (E164704)
	CHIMEI INNOLUX CORP STSP BRANCH	M185**-***, M200**-***, M215**-***, *230**-*** (“*” can be “0-9” or “A-Z” or “Blank” to indicate the differnt code of the client or the different sales territory)	18.5 inch 20 inch 21.5 inch 23 inch	UL 60950	UL (E207943)
	CHUNGHWA PICTURE TUBES LTD	CLAA185*****, CLAA200*****, CLAA215***** (“*” can be “0-9” or “A-Z” or “Blank” to indicate the differnt code of the client or the different sales territory)	18.5 inch 20 inch 21.5 inch	UL 60950	UL (E194548)

14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
	CHIMEI INNOLUX CORP	MT185*****, MT200*****, MT215*****, M*230*****(“*” can be “0-9” or “A-Z” or “Blank” to indicate the differnt code of the client or the different sales territory)	18.5 inch 20 inch 21.5 inch 23 inch	UL 60950	UL (E253847)
4. PCB	HUIZHOU XINGZHIGUANG TECHNOLOGY CO LTD	XZG-P1	94V-0,Thick 1.6mm	UL 796	UL (E246887)
	SHENZHEN LONG JIANG INDUSTRY CO LTD	D	94V-0,Thick 1.6mm	UL 796	UL (E300052)
	MEIZHOU KEJIE INTEGRATED CIRCUIT CO LTD	KJ-2	94V-0,Thick 1.6mm	UL 796	UL (E255694)
	XIN FENG FU CHANG FA ELECTRONIC CO LTD	FCF-3	94V-0,Thick 1.6mm	UL 796	UL (E232205)
	GOLDTOP CIRCUITS (HUIZHOU) CO LTD	GT-02	94V-0,Thick 1.6mm	UL 796	UL (E216098)
	KINGBOARD LAMINATES (MACAO COMMERCIAL OFFSHORE) LTD	KB-6160	94V-0,Thick 1.6mm	UL 796	UL (E123995)
	Boluo KONKA Printed Board Co., Ltd.	KK1	94V-0,Thick 1.6mm	UL 796	UL (E211940)
	Huizhou Shenghua Industrial Co., Ltd.	SH-05, SH-04, SH-01	94V-0,Thick 1.6mm	UL 796	UL (E202404)
	MEI ZHOU LI YU DA CRICUIT BOARD Co., Ltd.	LYD-3	94V-0,Thick 1.6mm	UL 796	UL (E320265)
	Boluo KONKA Printed Board Co., Ltd.	KK6	94V-0,Thick 1.6mm	UL 796	UL (E211940)
	Dongguan Dico Circuit Co., Ltd.	Dico-01	94V-0,Thick 1.6mm	UL 796	UL (E205057)
	Various	Various	94V-0, Thick 1.6mm	UL 796	UL
5. Fuse	COOPER BUSSMANN INC.	SR-5(HTM)	T2A 250V	EN 60127-1, EN 60127-3	VDE:12205 2

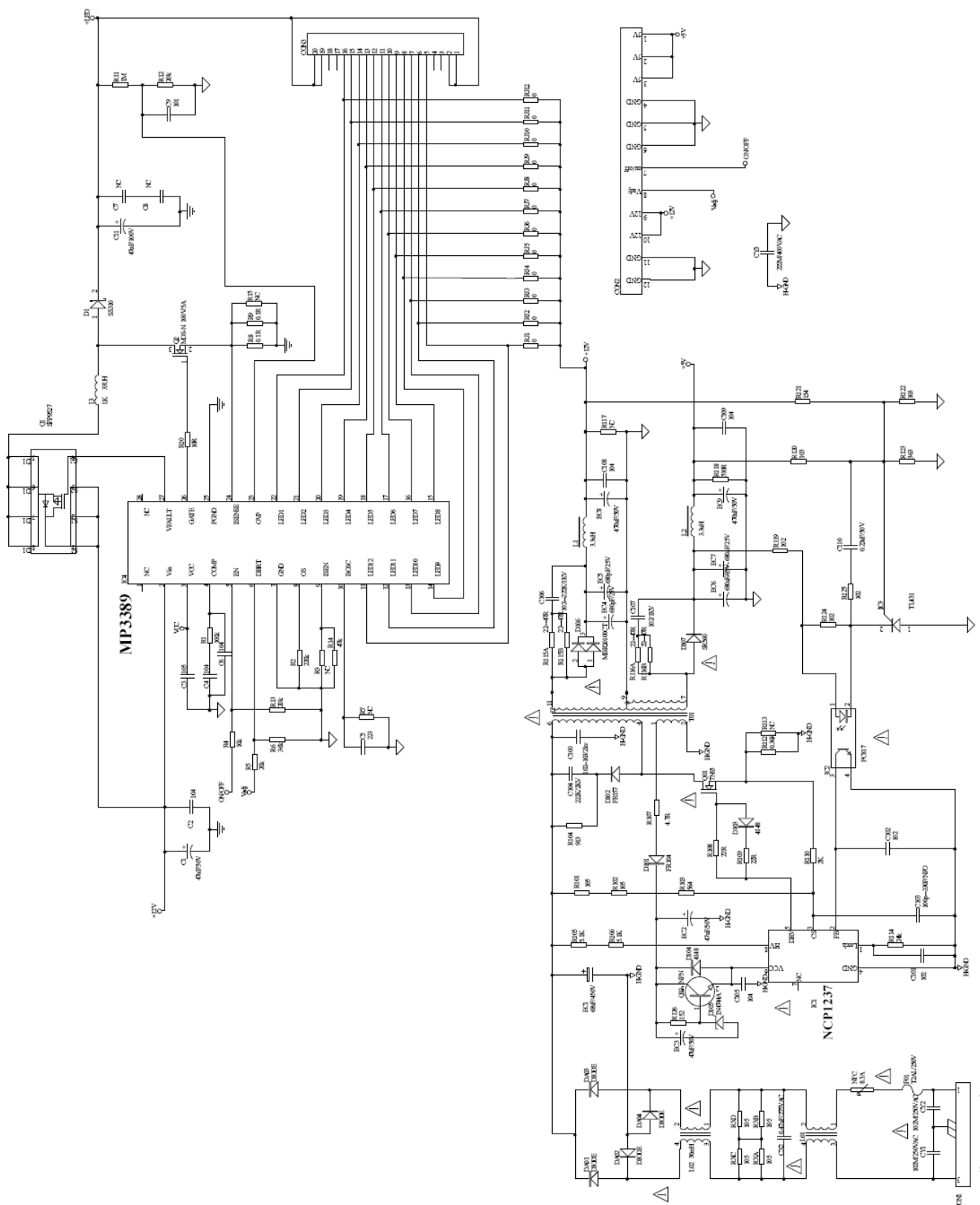
14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
	XC Eelectronics(Shen Zhen) CORP. LTD.	5TR	T2A 250V	EN 60127-1, EN 60127-3	VDE(40019 789)
	Hollyland Company Limited	30T	T2A 250V	EN 60127-1, EN 60127-3	VDE(40011 830)
	Various	Various	T2A 250V	EN 60127-1, EN 60127-3	VDE
6. NTC	Nanjing Shiheng Electronics Co.,Ltd.	MF72-8D11	3A 120/240V	UL 1434	UL (E241319)
	THINKING ELECTRONIC INDUSTRIAL CO LTD	SCK-083	3A 240V	UL 1434	UL (E138827)
	Various	Various	3A 240V	UL 1434	UL
7. X2 capacitor(CX2)	Fuxin Pan Ocean ElectronicLtd.	MPX	0.47μF/275VAC	IEC 60384-14	VDE: 40015756 UL:E232333
	Shantou High-new Technology Development Zone Songtian Enterprise Co. , Ltd.	MPX	0.47μF/275VAC	IEC 60384-14	TUV:160120 25001 UL:E208107
	Shenzhen Sincerity Technology Co.,Ltd.	MKP/MPX	0.47μF/275VAC	IEC 60384-14	VDE: 40028812 UL:E319615
	Shenzhen Su Rong Capacitors Co.,Ltd.	MPX	0.47μF/275VAC	IEC 60384-14	VDE: 40008924
	Xiamen Faratronic Co.,Ltd.	MKP62	0.47μF/275VAC	IEC 60384-14	VDE:40000 358 UL:E186600
	Various	Various	0.47μF/275VAC	IEC 60384-14	VDE
8.Y2 Capacitor (CY1,CY2)	Anshan Electronic Ceramic Co.,Ltd	CT7	1000pF 250Vac	IEC 60384-14	VDE:40011 817 UL:E232980
	Shantou High-new Technology Development Zone Songtian Enterprise Co. , Ltd.	AC	1000pF 400Vac	IEC 60384-14	VDE: 40025748 UL:E208107
	Xiamen Wanming Electronics Co.,Ltd	HJ	1000pF 400Vac	IEC 60384-14	VDE: 4000353 UL:E221839
	Guangdong South Hongming Electronic Science and Technology Co.,Ltd	Y1	1000pF 400Vac	IEC 60384-14	VDE:11835 7 UL:E154899
	Various	Various	1000pF 400Vac	IEC 60384-14	VDE
9. Y1 capacitor (CY3)	Anshan Electronic Ceramic Co.,Ltd	CT7	1000pF 250Vac	IEC 60384-14	VDE:40011 817 UL:E232980

14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
	Shantou High-new Technology Development Zone Songtian Enterprise Co., Ltd.	AC	2200pF 400Vac	IEC 60384-14	VDE: 40025748 UL:E208107
	Xiamen Wanming Electronics Co.,Ltd	HJ	2200pF 400Vac	IEC 60384-14	VDE: 4000353 UL:E221839
	Guangdong South Hongming Electronic Science and Technology Co.,Ltd	Y1	2200pF 400Vac	IEC 60384-14	VDE:118357 UL:E154899
	Various	Various	2200pF 400Vac	IEC 60384-14	VDE
10.Opt-coupler(IC2)	Sharp Corporation	PC817	dti>0.4mm	IEC/EN 60950, VDE 0884, UL 1577	VDE (40008087), UL (E64380)
	Lite-On Technology Corporation	LTV-817	dti=0.6mm	IEC/EN 60950, VDE 0884, UL 1577	VDE (40015248), UL (E113898)
	Bright Led Electronics Corp.	BPC-817	dti>0.4mm	IEC/EN 60950, VDE 0884, UL 1577	VDE (40007240), UL (E236324)
	Everlight Electronics Co., Ltd.	EL817V	dti=0.5mm	IEC/EN 60950, VDE 0884	VDE (132249)
	Sharp Corporation	PC817	dti>0.4mm	IEC/EN 60950, VDE 0884, UL 1577	VDE (40008087), UL (E64380)
11.Line Filter Inductor (L01)	SHENZHEN KTC TECHNOLOGY CO.,LTD	402-****-*****G (“*” can be “0-9” or “A-Z” or “Blank” to indicate the different code of the client or the different sales territory)	Class B	IEC 60065:2005	Test with appliance
Wire(L01)	Shanghai Asia Pacific Electric Co.,Ltd.	2UEW	130°C	UL94	E214423
	TAI-I COPPER (GUANGZHOU) CO., LTD.	2UEW	130°C	UL94	E85640

14.2	Table: Critical Electric Components				P
object/part No.	Manufacturer /trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>
12.Line filter inductor(L02)	SHENZHEN KTC TECHNOLOGY CO.,LTD	402-****-*****G (“*” can be “0-9” or “A-Z” or “Blank” to indicate the different code of the client or the different sales territory)	Class B	IEC 60065:2005	Test with appliance
-Wire(L02)	Shanghai Asia Pacific Electric Co.,Ltd.	2UEW	130°C	UL94	E214423
	TAI-I COPPER (GUANGZHOU) CO., LTD.	2UEW	130°C	UL94	E85640
13.Transformer (T01)	SHENZHEN KTC TECHNOLOGY CO.,LTD	401-****-*****G (“*” can be “0-9” or “A-Z” or “Blank” to indicate the different code of the client or the different sales territory)	Class B/130°C	IEC 60065:2005	Test with appliance
-Bobbin(T01)	SUMITOMO CHEMICAL CO.,LTD	LCP E4008	130°C	UL94	E54705
-WIRE(T01)	GUANGDONG RONSEN SUPER MICRO-WIRE CO.,LTD	2UEW	130°C	UL94	E164502
	SHANHAI ASIA PACIFIC	2UEW	130°C	UL94	E214423
-TAPE (T01)	JINGJIANG JINGYI ADHESIVE PRODUCT CO.,LTD	JY25-A	130°C	UL94	E246950
<sup>1)</sup> an asterisk indicates a mark which assures the agreed level of surveillance					

17.1	TABLE: Screws and connections test			P
Type of tightening	Diameter of nuts (mm)	Torque (Nm)	Result	
10 times	3.9	1.2Nm	No damage	
10 times	2.8	0.4Nm	No damage	

## Attachment 1- Circuit Diagram



**Power circuit**

## ***Attachment 2- EUT Photos***



***Fig1 EUT Front View(Model:22L11A)***



***Fig2 EUT Front View(Model:19L11A)***

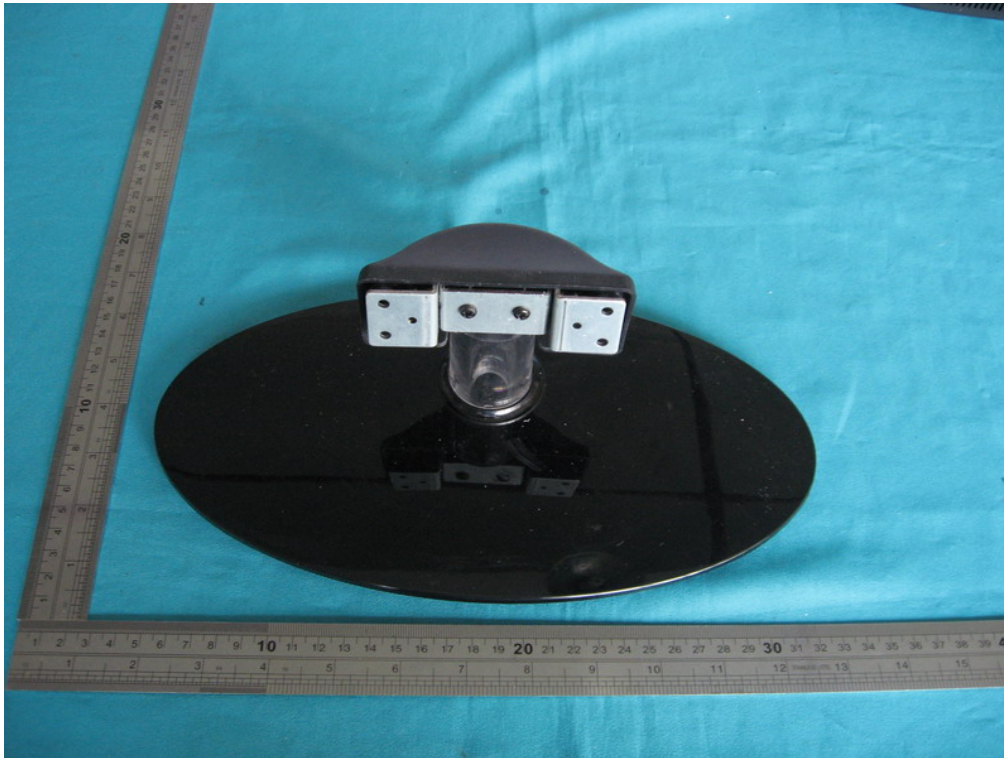
**Model : 23L11**



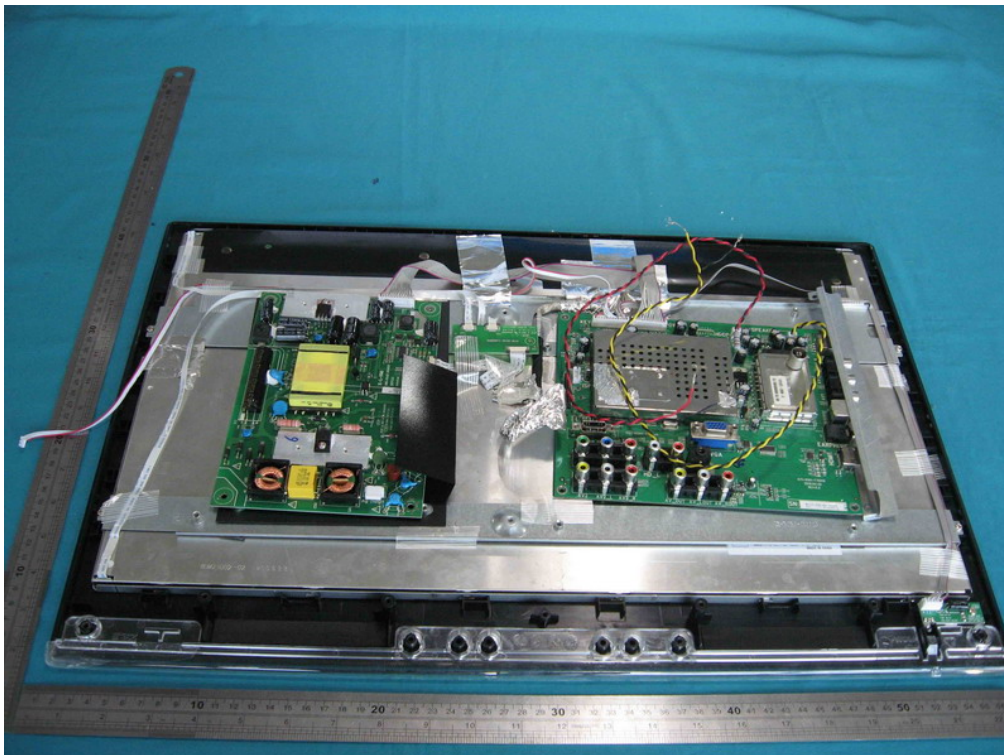
**Fig3 EUT Front View**



**Fig4 EUT Back View**



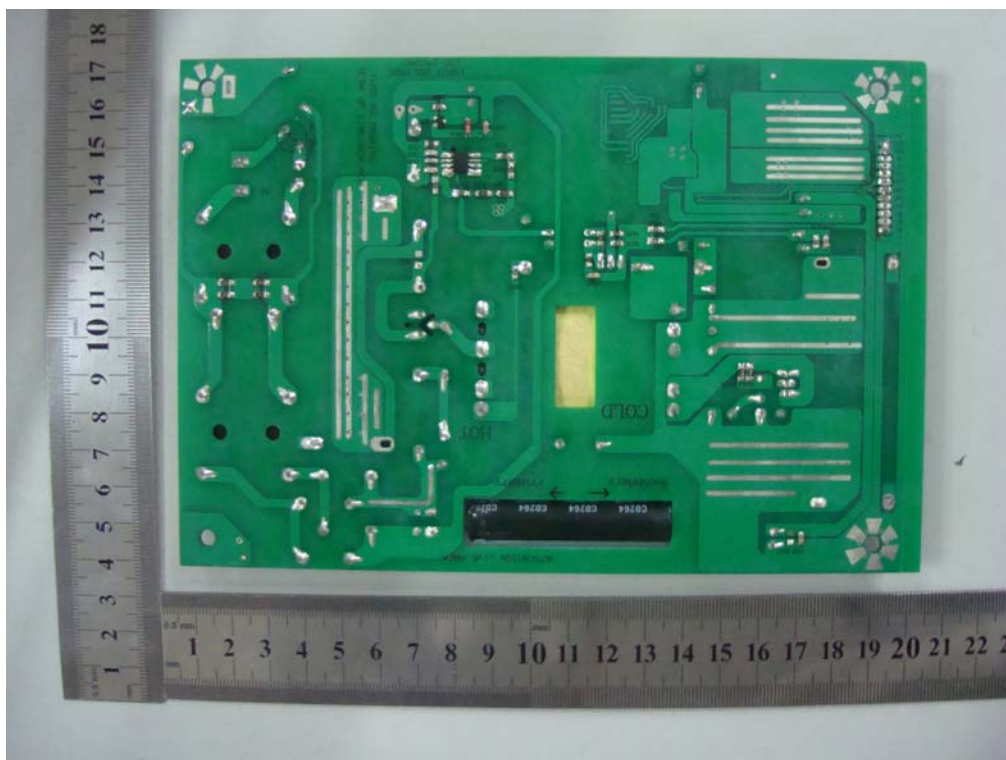
***Fig5 EUT base view***



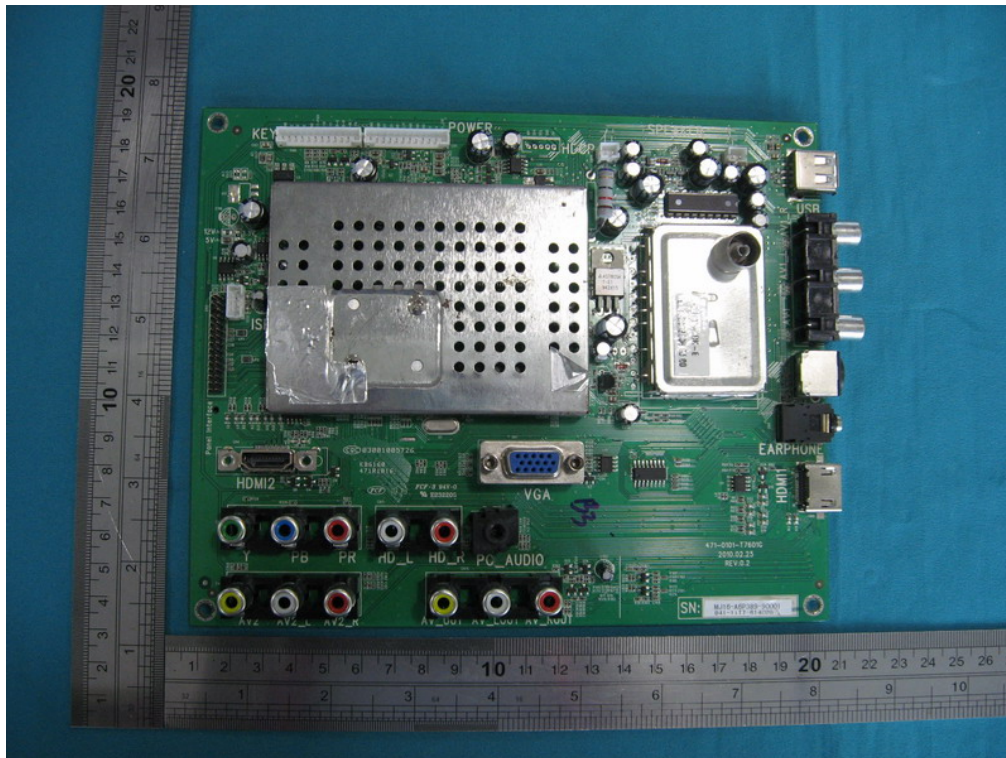
***Fig6 EUT Internal View***



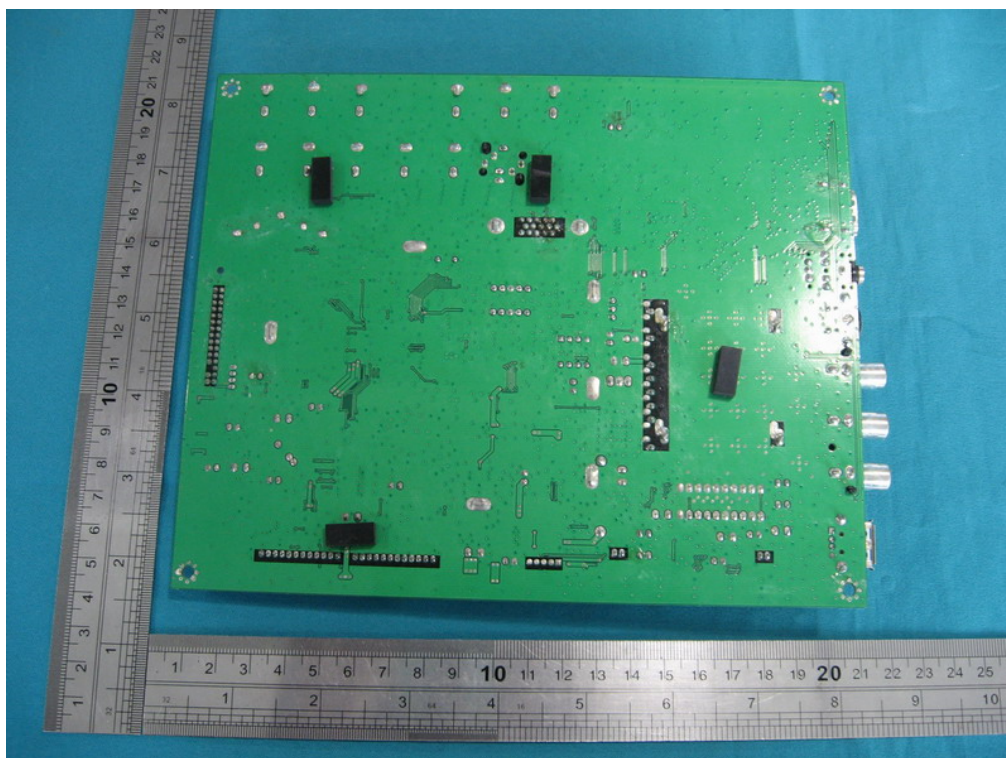
**Fig 7 Power Board Front View**



**Fig 8 Power Board Back View**



**Fig 9 Main Board Front View**



**Fig 10 Main Board Back View**



**Fig11 Remote View**